

Soil Samples

1955

Belgian Congo

- 14 A from foot path at Wagenia fishery, Stanleyville, April 19.
- 14 B from shoreline, muddy sand, Wagenia fishery, Stanleyville, Apr. 19.
- 17 rotten wood from log in "robusta" coffee field, Yangambi, Apr. 24.
- 21 from among rubber trees, near "robusta" field, Yangambi, Apr. 24.
- 22 ten feet from base of giant tree (Entandrophragma), Yangambi, Apr. 24.
- 26 just past kilometers 156 out of Stanleyville, on road to Mla-Nia, April 26.
- 28 from base of old tree stump in coffee plantation, 245 kilometers out of Stanleyville, April 26.
- 33 moist mud, about 2 ft. above water level, Obo River, on road to Paulis, 20 kilometers from Wamba, April 27.
- 35 from base of termite mound, oil nut buying stop, on road to Niangara, April 28.
- 41 from antelope field, Gangala-na-Bodio, April 29.
- 42 from baby elephant wallow (mud puddle on river bank), Gangala-na-Bodio, April 29.
- 43 from side of side road into Huillerie "Mbengu," enroute Gangala-na-Bodio, April 29.
- 44 right side main road at Huillerie "Mbengu," enroute, Gangala-na-Bodio, April 29.
- 45 from roadside ditch, Dangu road enroute Gangala-na-Bodio, April 29.
- 46 at top of slope before second "ferry", Garamba Park, April 30.
- 47 at shoreline, second ferry, Garamba Park, April 30.
- 49 from between roots of large acacia, right side Watsa road fork at Faradje, May 1.
- 50 from bank 3 feet above road, right side Goto-Nioka road, 45 kilometers from Nioka, May 1.
- 52 from corn field, native village, before Nioka veterinary laboratory, May 2.

Belgian Congo

- 53 Nioka, Ineac Agric. Exper. Station garden, May 2.
- 54 same as 53, but from coffee field near offices top of hill, May 2.
- 55 from bank across road from coffee field (No. 54 above), May 2.
- 57 from down hill side of road, Kasenyi road (returning), May 3.
- 58 from between roots of big tree, entrance Mt. Hoyo caves, May 4.
- 59 soil and rock sample from floor of 2nd cave, Mt. Hoyo, May 4.
- 60 under shade of cactus top of bluff before guest house, Ishango, May 6.
- 61 roadside, top of south road, Ishango, May 6.
- 62 from low point of afternoon drive, s. w. road, Ishango, May 6.
- 63 by log in pygmy village, 23 kilometers from Beni, May 8.
- 64 from path to pygmy village near Beni, May 8.
- 65 from Dieha hospital grounds, A.I.M., 30 kilometers from Beni, May 8.
- 67 near hippo dung, near bathing spot monument, Rwindi Camp, May 10.
- 66 near kilometer-post 469 out of Butembo on way to Rwindi Camp, May 9.
- 68 from buffalo watering place near pelican ground, Rwindi, May 10.
- 69 from hippo shore, near No. 67, Rwindi Camp, May 10.
- 70 from top of bank above lion feeding ground near hippo-pool afternoon, May 10.
- 71 roadside rut Tshibat1 Farm, Lwiro, May 15.
- 72 from bank of stream, Tshibat1 Farm, Lwiro, May 15.
- 73 from entrance of Mia-ya-moto bat cave, Lake Kivu, May 16.
- 74 from path to No. 73 bat cave, May 16.
- 75 ^(*) rock and black volcanic soil from Mulungu farm (Bendrickx), May 17.
- 76 from cotton field, south of Uvira, Lake Tanganyika, May 20.
- 77 from bank of stream near railway, Uvira, Lake Tanganyika, May 20.
- 78 bottom sample dredged from 13 meters, off Uvira station, Lake Tanganyika, May 20. (if of no use to you return sometime can be sterilized or fumigated afterwards.)
- 79 roadside excavation out of Astrida, red patch at bottom of pit, May 23.

(*) Return what is not used; represents "break-down" of some old lava I also saved; could be sterilized or fumigated afterwards.

Belgian Congo

- 80 opposite side of road from No. 79, dry dark soil near tree and among grass roots, 67 kilometers out of Astrida, May 23.
- 81 from among grass roots on road to Gabiro, near welcome sign to province of Kibungu, May 23.
- 82 near where zebras were photographed Kagera Park, May 24.
- 83 from crocodile nest pit, Kagera Park, May 24.
- 84 from top of hill where rest house is to be built, Kagera Park, May 24.
- 85 from causeway ditch, Kagera Park, May 24.
- 86 from grass roots top of causeway ditch, Kagera Park, May 24.

Uganda

- 87 on road to Juba, May 28.

Sudan

- 88 near puddle near shore, Buffalo Cape, river Nile, June 1.
- 89 between piles of wood, Buffalo Cape, river Nile, June 1.
- 90 hard lumps of soil, Buffalo Cape, river Nile, June 1.
- 91 from shore Kaka, river Nile, June 2.
- 92 soft black soil from just above water's edge, Salem Bango, river Nile, June 3.
- 93 Jebelen, river Nile, June 4.

Soil Samples

Smithsonian-Breeding ^{Caribbean} Expedition, 1958

- # 1 St. John, Mar. 26, Francis Bay
above beach
- # 2 Virgin Gorda, The Baths Mar. 29
- # 3 Virgin Gorda, The Baths, Mar. 29
(soil excavated from water
hole) ~~Spain~~
- # 4 Peter Id. Little Bay, Mar. 29
- # 5 ~~Mrs. Phil~~ Tortola, Mar. 30, soil from
Mrs. Phil's garden above
Road Down ~~in~~
- # 6 Tortola, ~~Mar~~ Mar 31, hill, north
side, Soper's Hole
- # 7 Lost Van Dyke Apr. 2
- # 8 Anegada, Pomato Pt. Apr. 8
- # 9 St. Martin, Little Bay Apr. 11
from hotel grounds
- # 10 St. Martin, Old Fort Hill, Apr. 12
- # 11 Anguilla, Road Bay, Apr. 13
(over)

- ~~Antigua, Desmonds Place~~
12 ~~English Harbor~~ Antigua, English Harb, Apr. 20
- 13 Barbuda, Apr 25, from path
above Dark Cave
- 14 Antigua, Desmond Nicholsons
Place Apr. 23
- 15 Barbuda, Apr. 25, from
entrance of Dark Cave
- 16 Barbuda, Apr. 25, inside
Dark Cave
- 17 Barbuda, Apr. 25 Bryant
Cave. (Bryant not Bryan)
- 18 } Debris from Darby Cave
19 }
20 } Barbuda, Apr. 26.
- 21 } Antigua, May 1, ~~from well~~
22 } ~~inside of~~ Bat Cave
- 23 Antigua, May 1 at entrance
of Bat Cave
- 24 Antigua, May 1 at foot of
path leading to Bat Cave
- 25 Antigua, May 1, mud from edge
of f.w. pool on road to Bat Cave.

A letter has, has not, been written.

SMITHSONIAN INSTITUTION

WASHINGTON 25, D. C., U. S. A.

C. & R. File No. _____

SHIPPING INVOICE

Date _____

To Dr. Dale E. Wolf, Manager
Agricultural Chemicals Section
E. I. du Pont de Nemours & Co
Grasselli Chemicals Department
Building 268, Experiment Station
Wilmington, Delaware
Initiated by Waldo L. Schmitt

Recommended Waldo L. Schmitt
Head Curator.

Approved _____
Bureau Director.

Shipped _____ by _____
Prepaid; Collect; Messenger.

Chief, ^{Dept.} Division of Zoology

The material listed below contained in _____ is transmitted as—

- (1) a gift. (3) in exchange. (5) return of material borrowed. (7) _____
(2) a loan at your request. (4) for examination at our request. (6) return of material sent for identification. (8) _____

LIST OF SPECIMENS

NAME OF OBJECT	LOCALITY	COLLECTOR	CATALOG No.	NUMBER OF SPECIMENS
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63 Soil samples from the Belgian
Congo, Uganda, and the Sudan

RETAIN THIS COPY FOR YOUR RECORDS

NOTE.—Loans are made for 2 months unless otherwise stipulated.

In connection with material sent out for identification all types and uniques must be returned.

Retention of any other material is permitted only on definite arrangement.

Received the above in good order (date) _____

Soil Samples

~~13~~

Apr. - 13 -

Leo.

==

Leo.

==

Leo.

==

Leo

14 A
14 B

Apr. - 13 -

Apr. - 13 -

Leo

Apr. - 15 - native mkt.

Stanleyville

Apr. 19

Apr. 19 Stan.

#

17

Yangambi Apr. 24.
rotten wood.

? #

49

Faradji May 1

#

21 ✓

Yangambi. Apr. 24

#

22 ✓

"

"

24

(Foot of giant tree)

23

Sichen

#

26 ✓

156 km out from
Stanleyville (Nia Nia Rd.)

Apr. 26

#

28 ✓

Km. 229

Apr. 26

Call Cochran

61 ✓ Ishango May 6 May 8
 62 ✓ pygmy village May 6
 63 ✓ Butembo Rwindi Rd. May 9
 64 - Rwindi May 10
 65 - Rwindi Camp. May 10
 66 - May 10

67 - Dipoo Pool. May 10

68 - Rd. Sid. Shiro, farm May 15.

69 ✓ Bank of stream Lwiro. " "

70 ✓ Entrance to bat cave May 16

? { 71 - Maya moto bat cave

⊗ 72 - Mulungu May 17.

73 ✓ Cotton field Lwiro May 20

74 ✓ Bank of stream May 20

* Bot. Lake Sample 75 - Lwiro.

76 -

77 ✓ 48.m. K1564 May 20

78 ✓ 10:30 May 23

79 ✓ game bad. May 24

80 -

81 -

82 Rd to Deba

83 -

84 - Buffalo Cape.

85 -

86 -

87 -

33 ✓

35 ✓ Palm oil factory Apr. 28

41 ✓ Gangala Apr. 29

42 ✓ " " "

43 ✓ " "

44 ✓ Apr. 29

45 ✓ Dunge Rd. Apr. 29

46 ✓ Apr. 30

47 ✓ Gurumba Pl. Apr. 30
(river shore)

49

50 ✓ May 1

52 ✓ Native village ^{near} Nioka May 2

53 ✓ May 2

~~54 ✓ Iheac Nioka May 2.~~

55 ✓ Lwiro May 3

? - 57 ✓ ~~is bat case.~~ May 3

59 ✓ May 4

60 Ishango May 6

Belgian Congo ^{center} Soil samples, (Belgian Congo) 1955

14 A from foot path at Wagenia Fishery
Stanleyville Apr. 19.

14 B. from shore line, muddy sand, Wagenia
fishery, Stanleyville, Apr. 19.

17 rotten wood from log in "robusta" coffee
field, Yangambi, Apr. 24.

21 from among rubber trees, near "robusta"
field, Yangambi, Apr. 24.

22 ten feet from base of giant tree (Entan
drophragma), Yangambi, Apr. 24

26 just past kilometers 156 out of Stanley-
ville, on road to Nia-Nia, Apr. 26.

28 from base of old tree stump in coffee
plantation, 245 kilometers out of Stanley-
ville, Apr. 26.

33 moist mud, ^{about} 2 ft above water level, ~~on~~
Obe River, on road to Paulis, 20
kilometers from Wamba, Apr. 27.

35 from base of termite mound, ^{oil nut} ~~on~~
^{buying} ~~stop~~ ~~before~~ ~~the~~ ~~MBenga~~ on
road to Niangara, Apr. 28.

- 41 From antelope field, Gangala-na-Bodio,
Apr. 29.
- 42 From baby elephant wallow (mud puddle
on river bank), Gangala-na-Bodio, Apr. 29.
- 43 From side of ^{side} road into Huilerie "Mbengu",
enroute Gangala-na-Bodio, Apr. 29.
- 44 right side main road, ^{at} Huilerie "Mbengu",
enroute, Gangala-na-Bodio, Apr. 29.
- 45 From roadside ditch, Dungu road en-
route Gangala-na-Bodio, Apr. 29.
- 46 at top of slope before second "ferry"
Garamba Park, Apr. 30.
- 47 at shore line, second ferry, Garamba
Park, Apr. 30.
- 49 From between roots of large acacia
right hand side Watsa road Fork at
Faradje, May 1.
50. From ^{bank 3 feet above road,} right side Goto-Nioka road,
45 kilometers from Nioka, May 1.
- 52 From corn field, native village, before
~~Ineac Station~~, Nioka veterinary
laboratory, May 2.

: 53 Nioka, ~~INBAQ~~ Agri. Exper. Station garden
May 2.

54 same as 53, but from coffee field
near ~~administ~~ offices top of hill
May 2.

55 from bank across road from coffee
field (#54 above), May 2

57 from down hill side of road, Kasenyi
road (returning), May 3.

58 from between roots of big tree, entrance
Mt. Hoyo caves, May 4.

59 soil and rock sample from floor of
2nd cave, Mt. Hoyo, May 4.

60 under shade of cactus top of bluff
before guest house, Ishango, May 6.

61 road side, top of south road,
Ishango, May 6.

62 from low point of afternoon drive,
S.W. road, Ishango, May 6.

63 by log in pygmy village, 23 kilometers
from Beni, May 8.

- : 64 from path to pygmy village near Beni,
May 8.
- 65 from Dicha hospital grounds, A.I.M., 30
kilometers from Beni, May 8.
- 66 near kilometer ^{-post} 469, ^{out of Butembo on way to} ~~before~~ Rwindi
Camp, May 9.
- 67 near hippo dung, near bathing spot
monument, Rwindi Camp, May 10.
- 68 from buffalo watering place near peli-
can ground, Rwindi, May 10.
- 69 from hippo shore, near #67, ~~R~~
Rwindi Camp, May 10.
- 70 from top of bank above lion feed-
ing ground near hippo pool after-
noon, ~~at~~ May 10
- 71 road-side rut Tshibati Farm,
Lwiro, May 15.
- 72 from bank of stream Tshibati
Farm, Lwiro, May 15.
- 73 from entrance of ^{Mia-ya-} ~~Maya~~ moto bat
cave, Lake Kivu, May 16
- 74 from ~~path~~ to #73 bat cave, May 16.

black volcanic

- 75 rock and soil ~~samples~~ from Mulungu farm (Hendricks), May 17.
- 76 from cotton field, south of Uvira, Lake Tanganyika, May 20.
- 77 from bank of stream near railway, Uvira, Lake Tanganyika, May 20.
- 78 bottom sample ^{dredged} from 13 meters, off Uvira station, Lake Tanganyika, May 20.
- 79 road side ^{excavation} ~~at~~ out of Astrida, May 23, red patch at bottom of pit,
- 80 opposite side of road from #79, dry dark soil near tree and among grass roots, May 23.
- 81 67 kilometers out of Astrida, from among grass roots on road to Gabiro, near welcome sign to province of Kibungu, May 23.
- 82 near where zebras were photo'd Kagera Park, May 24.
- 83 from crocodile nest pit, Kagera Park, May 24.

84 From top of hill where rest house
is to be built, Kagera Park, May 24.

85 from causeway ditch, Kagera Park,
May 24.

86 from grass roots top of causeway
ditch Kagera Park, May 24.

Uganda

87 on road to duba, May 28

Sudan

88

near guddle near shore, Buffalo
Cape, river Nile, June 1.

89

between piles of wood, Buffalo
Cape, river Nile, June 1.

90

hard lumps of soil, Buffalo
Cape, river Nile, June 1.

91

from shore Kaka, river Nile
June 2.

92

soft black soil, from just
above waters edge, Salem
Bango, river Nile, June 3.

93

Debelem, river Nile, June 4

In addition there are ^{perhaps} ~~about~~ 4 samples taken in Leopoldville, Apr. 13-15. One or more were taken in the Ferdinand De Bock Park, ~~at~~ or alongside ^{the} road ~~of~~ ^{street} nearby, and one or two in native market, ~~these last~~ market soil sample or samples were taken on the 15th. I was unable to check labelling on muslin sacks as I did not want to cut plastic bags in which it was sealed.

Several samples appear to have been improperly dried, and seem to have moulded within plastic bags.

63 or so samples.

Dear Dr. Wolf,

①

You Folks have taken
a considerable weight² off my mind
with the acceptance of the ~~soil~~ ^{soil} ~~pottery~~
samples collected ^{for the greater part} in the Belgian
Cong, and in a small part in the
Sudan ~~in the course of~~ ^{during} the
Smithsonian - Bredin Expedition
this past April, May, and June.

(list enclosed). In this mail or with
in a day or two you will hear from
Dr. Willis H. Wheeler regarding the
^{conditions}
~~regulations~~ set up by the U.S. Department
of Agriculture ~~under~~ ^{which the handling of} ~~shipment~~ of
raw, ^{unfumigated} samples of soil is permitted.

As soon as ~~when~~ Dr. Wheeler releases the samples
to me I shall forward them ^{to you} ~~express~~
~~prepaid~~ I shall ^{endeavor to} ~~protect them~~ ~~also~~ ^{over} them

against undue cold, and ask the
express company not to leave
them around in an unheated place.
If there is any chance that freezing
would harm the samples please warn
me ~~and so that we can wait~~ ^{can then} ~~wait~~
~~for~~ more moderate ^{or lower} temperatures
than ^{obtaining} ~~at~~ present ~~to obtain~~. Under
any circumstances, I shall not be
able to send the samples ~~to~~ ^{on} ~~the~~ ~~next~~ ~~week~~ ~~if then depending up~~ ~~until Dr. Wheeler~~ ~~gets~~ ~~his~~ ~~reply~~ ~~to~~ ~~his~~ ~~letter~~
next week if then depending up until Dr. Wheeler gets his reply to his letter

(3)

H. You will no doubt have heard something about these specimens from Mr. Bjornson. With this I am sending ^{regarding them.} you the ^{other} pertinent correspondence ~~regarding~~ my desire to have something done with and about them. ~~In conformity with your~~ "As is the rule with you Diotics people," they are being sent ~~to you~~ with "no strings" of any kind attached.

~~Dear Sir~~

4/ I ~~am~~ trying to be as hopeful as can
be that you may find something
worth^{while} ~~in~~ in one or more of
these soils. Should you be looking
for a name for something new,
Mr. Bredin, ^{who made the expedition possible,} his wife, Octavia, or
~~her~~ little daughter, Antonia,
most recent addition to the family,

or more remotely, James Smithson
who founded this Institution,
might be considered. I do not
want to do a lot of foolish an-
ticipating, but I am holding a
good thought as the Christian
Scientists say

Sincerely

November 30, 1955

Dr. Dale E. Wolf
E. I. du Pont de Nemours & Company
Grasselli Chemicals Department
Building 268, Experimental Station
Wilmington, Delaware

Dear Mr. Wolf:

You folks have taken a considerable weight off my mind with the acceptance of the soil samples collected for the greater part in the Belgian Congo and a small part in the Sudan during the Smithsonian-Bredin Expedition this past April, May, and June (list enclosed).

In this mail or within a day or two you will hear from Dr. Willis H. Wheeler regarding the conditions set up by the U. S. Department of Agriculture under which the handling of raw, unfumigated samples of soil is permitted. As soon as Dr. Wheeler releases the samples to me I shall forward them to you. I shall endeavor to protect them against undue cold, and ask the express company not to leave them around in an unheated place. If there is any chance that freezing would harm the samples please warn me. We can then await more moderate outdoor temperatures than obtain at present. Under any circumstances, I shall not be able to send the samples on until Dr. Wheeler gets your reply to his letter.

You will no doubt have heard something about these specimens from Mr. Bjornson. With this I am sending you the other pertinent correspondence regarding them. They are being sent with "no strings" of any kind attached.

~~I am trying to be as~~ hopeful ~~as can be~~ that you may find something worthwhile in one or more of these soils. Should you be looking for a name for something new---Mr. Bredin, who made the expedition possible; his wife, Octavia; or little daughter, Antonia--most recent addition to the family; or more remotely, James Smithson, who founded this Institution---all or any of these might be considered. I do not want to do a lot of foolish anticipating but I am holding a good thought, as the Christian Scientists say.

Sincerely,

Waldo L. Schmitt
Head Curator
Department of Zoology

Encs.
WLS:vb